



**Jourdan Janik**  
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**BP Exploration & Production Inc.**

Gulf of Mexico Region  
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Houston, Texas 77079  
17<sup>th</sup> Floor WL1

December 10, 2020

*via E-mail*

Fieldwood Energy, LLC.  
2000 W. Sam Houston Pkwy. South  
Houston, TX 77042  
Attn: Mr. Nathan Vaughn

Houston Energy Deepwater Ventures I, LLC  
1415 Louisiana Street, Suite 2400  
Houston, TX 77002  
Attn: Mr. David Amend

Red Willow Offshore, LLC  
1415 Louisiana Street, Suite 3650  
Houston, TX 77002  
Attn: Mr. Rex Richardson

RE: Galapagos LSPS In-Situ Repair  
AFE No. NKO393390  
Mississippi Canyon Area  
Gulf of Mexico

Gentlemen:

Reference is hereby made to that certain Galapagos Area Loop Subsea Production System Construction and Operating Agreement dated effective December 1, 2011 (as amended) by and between BP Exploration & Production Inc. ("BP"), Fieldwood Energy, LLC., Red Willow Offshore, LLC and Houston Energy Deepwater Ventures I, LLC, (the "LSPS COA"). Capitalized terms not defined herein shall have the meaning set forth in the LSPS COA.

As the Parties are aware, on April 14, 2020, an abnormality (intrusion of sea water into the LSPS) was observed in the Santiago and Santa Cruz PLEMS during the execution of certain tie in work related to the Genovesa well in the MC 519 Satellite Lease. Since this time, BP has diligently conducted investigations to understand the cause of this abnormality via the execution of multiple campaigns. In the most recent campaign conducted in November 2020, it is believed that source of the leak was identified to be present on the SLDV1 at SC PLEM #2.

In furtherance of the discussions held in the December 4, 2020 co-owner meeting, please be advised BP (in its capacity as Operator of the LSPS) plans to execute an operation on the SC PLEM #2 wherein it will tighten all bolts on the SLDV1 valve gasket seal in an effort to remediate the leak observed. In accordance with Article 8.02 of the LSPS COA, BP hereby submits the subject informational AFE to the Parties in the gross amount of \$843,900 for costs associated with the aforementioned operation. Further details surrounding the costs associated with this activity are provided in the attached AFE. Any further remediation work beyond the scope contained herein will be the subject of additional AFE(s).

Should you have any questions or concerns, please contact the undersigned at (832) 772 – 5325.

Regards,



Jourdan Janik

Enclosures



## BP GOM AUTHORIZATION FOR EXPENDITURE

External AFE

DATE PREPARED:	December-20
OPERATOR:	BP
LEASE/UNIT/FACILITY:	Na Kika
WELL NAME/NO:	N/A
BUSINESS UNIT:	GOM
BP WORKING INTEREST:	
JOINT VENTURE NO:	100023
SAP COST CENTER:	16NKG01020

FINANCIAL MEMO KEY ID:	72021
AFE NO:	NKO3
START DATE:	December-20
END DATE:	January-21
OPERATING FIELD:	Na Kika
SURFACE LOCATION:	N/A
BOTTOM HOLE LOC:	N/A
PRPSD TOTAL DEPTH:	N/A

AFE Type:	Co-Owner Information Only
SAP NO:	H-S1PM0NKNB
<b>COPAS Overhead - Required</b>	
Operating / Expense	
<b>WELL TYPE - If Applicable</b>	
[ Select One ]	
[ Select One ]	
[ Select One ]	

PROJECT DESCRIPTION/COMMENTS	Project Name:	NK - GALAPAGOS LSPS In-Situ Repair			
This AFE covers costs associated with BP's in-situ repair efforts to mitigate the SC2 PLEM egress from the SLDV1 valve gasket seal located at the interface of the valve bonnet and body.					
<b>Scope:</b> The flange bolt tightening project scope is described in detail below:					
- Offshore Execution of tightening/re-torqueing of all Valve Bonnet Flange Bolts (qty 16) on SLDV1 to the OEM supplied torque values. Additional insulation removal will be required to allow subsea torque wrench engagement					
<b>Cost:</b> Cost estimate is based on Vendor Quotes, ROV vessel day rates, and Technical Services support to complete the scope of work.					
<b>Schedule:</b> Flange bolt tightening is currently planned to occur in Mid to Late December 2020, depending on equipment readiness & vessel availability.					
<b>Project Justification:</b> Following the identification of the leak origination point, an in-situ repair attempt to restore the pressure containment integrity of the bonnet gasket seal at the SLDV to allow the re-instatement of the Galapagos LSPS loop.					

WORKING INTEREST OWNERS	Final WI %	WI COST	NOTES
BP	64.03157%	\$540,362	
Fieldwood	21.00144%	\$177,231	
Red Willow	12.31699%	\$103,943	
HED	2.65000%	\$22,363	
Total	100.00%	Total Costs \$843,900	

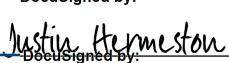
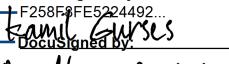
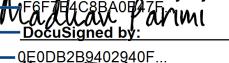
DESCRIPTION	ESTIMATED COST	
	Gross	Net
Technical Services	\$93,000	
Procurement	\$129,000	
Installation	\$609,900	
Logistics	\$12,000	
<b>TOTAL PROJECT COST*</b>	<b>\$843,900</b>	<b>\$0</b>

PROJECT CONTACTS:	NAME	TITLE
	Madhav Parimi	Subsea OPS Project Manager
	Justin Hermeston	Subsea OPS Project Engineer

**\*NOTICE TO NONOPERATOR:** Costs shown are estimates only. Nonoperators should not consider these estimates as establishing any limit on the monies which will be required to perform the proposed operation. Overhead will be charged in accordance with the Joint Operating Agreement.

**BP APPROVALS:**

PROJECT SPA:	Justin Hermeston
BUSINESS MANAGER:	Kamil Gurses
FINANCIAL DELEGATION:	Madhav Parimi
GOM CONTROLLER:	Ellie Teed

DocuSigned by:	SIGNATURE	DATE
 Justin Hermeston F258F0FE524492...		12/9/2020
 Kamil Gurses F4F1E4C9BA0E77...		12/9/2020
 Madhav Parimi 0E0DB2B9402940F...		12/9/2020
 Ellie Teed 323C4AED8C9431...		12/9/2020